

## Patent Abstracts of Russia

## Record 1 of 1



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(21) Application Information: 92008946  (71) Applicant:     Aktsionernoe obshchestvo zakrytogo tipa "Sorbi"  (73) Proprietor:     Aktsionernoe obshchestvo zakrytogo tipa "Sorbi"	(22) Date of filing: 19921214  (72) Inventor: Burylin S.Ju. Rachkovskaja L.N. Frolova I.I. Korotkikh V.N. Isajkina N.S.
(54) SORBENT BASED ON ALUMINIUM OXIDE  (57) Abstract: FIELD: medicine. SUBSTANCE: sorbent based on aluminium oxide is resistant to hydration and dissolving provides for use of matrix of aluminium oxide of definite porous structure which consists of not less than 50% of *kappa*-shaped phase and modification of its surface with carbon in amount of 3-12 mas. %. Sorbent features high sorptive properties in cleaning from organic substances.  EFFECT: highly efficient in purification of aqueous solutions from organic impurities, bacterial cells. 3 tbl  Copyright: Russian Committee for Inventions and Discoveries	

**PAR Result** 



End Session



95-253242/33 B07 C07 D16 J01 (D13 SORB= 92.12.14 B0 D15 J04)

SORBI STOCK CO 92.12.14 92RU-008946 (95.01.20) B01J 20/08, 20/20

New sorbent based on aluminium oxide for purificn. of aq. solns. - contains aluminium oxide matrix of not less than 50 per cent of kappa phase and has specific surface of 90-180 metres squared per

C95-115875

Addnl. Data: BURYLIN S YU, RACHKOVSKA YA L N, FROLOVA 11

New sorbent based on aluminium oxide for the purificn. of aq. solns. from organic cpds. and bacterial cells contg. 3-12 wt.% of carbon is distinguished in that as a matrix it contains Al<sub>2</sub>O<sub>3</sub> consisting of not less than by 50% of kappa-like phase, and has a specific surface of 90-180 m<sup>2</sup>/g, vol. of pores with a radius of 100-1,000 angstrom of 0.02-0.08 cm<sup>3</sup>/g and vol. of pores with a radius of 1,000-10,000 angstrom of 0.05-0.1 cm<sup>3</sup>/g.

## JSE

Used as a sorbent for medical, veterinary and food industry applications esp. for the purificn. of sewage waters and exhaust gases, in the chemical biotechnological industries as sorbents, catalysts, and

BC(5-A3B) D(3-H1Q, 4-B, 5-A3A) J(1-D1) .1

catalyst carriers and enzyme carriers.

ADVANTAGE

Creates a porous, stable-to-hydration sorbent based on aluminium oxides for purificn. of aq. solns. from organic cpds. and bacterial cells.

EXAMPLE

Aluminium oxide contg. 80% of the kappa-like phase (the rest gamma and X-ray amorphous aluminium oxide), modified with 8% of carbon with a real density of 3.0 g/cm³ and specific surface of 150 m³/g. The vol. of pores with a radius of 100-1,000 angstrom was 0.03 cm³/g, with a radius of 1,000-10,000 angstrom was 0.08 cm³/g.

Adsorption of the cells of staphylococci and enteric bacilli in experimental conditions was 72 and 70% respectively. Adsorption of vitamin B<sub>12</sub> in the given conditions was 41% from the initial concu. respectively. The content of A<sub>2</sub>O<sub>3</sub> in water after boiling of the sorbent was 70 μg/ml. (KKG)

was 70 µg/ml. (KKG) (3pp2302DwgNo.0/0) RU 2026734-C